## **MONITORING WELL No. MWC024**

Logged By: Micheal Lewis Checked By: Micheal Rendina Driller: Cascade Drilling Drilling Method: Sonic Drilling Sampling Method: Shelby Tube Sampling Interval: Continuous Core

Date Started: 10/20/06 Date Completed: 10/26/06 Northing: 1768408.81 Easting: 6470265.98 Elevation: 51.64 Feet Boring Depth: 125 Feet Client: Boeing Realty Corp. Site: Former C-6 Facility

Location: Los Angeles, California

Project No.: 1155.002

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Depth (ft)	Sample Number		Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well Co De	ompletion etails
0-					(18 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		Concrete		.6/ <u>.2</u> 4 .6/.8
2						CL	Brown (10YR 4/3), CLAY, moist, very stiff, plastic, with little to some silt.		Traffic Rated Well Box
6 8							Note: Scattered concrete and brick debris.		1 til
10-				0.0		ML	Brown (10YR 4/3), SILT, moist, firm to stiff, little to some clay, some fine-grained sand.		Portland Cement w/ 5% Bentonile Grout
- 14 — - 16 — -				0.0				4" Sch 80 PVC Blank	<b>▶</b>
18— - - 20—						ĊL.	Brown (10YR 4/4), CLAY, moist, stiff, some silt, plastic.	4" Sch 80	



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22— 				0.0		Ö	Brown (10YR 4/4); CLAY, moist, stiff, some silt, plastic.	
28-				0.0		ME	Brown (10YR 4/3), SANDY SILT, moist, firm, very fine-grained.	
32-				0.0		P.	Light yellowish brown (10YR 5/4), SAND, moist, poorly graded, very fine-grained, little silt.  Light yellowish brown (10YR 5/4), SAND, moist,	
34-				0.0			poorly graded, very fine-grained.	
38— - - 40—				0.0				

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Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well Completion Details
					verev v			
- 42— -				0.0		ML	Olive brown (2.5Y 4/4), SILT, moist, firm, some very fine-grained sand, oxidation staining in veins throughout.	
44 —						SM	Light olive brown (2.5Y 5/4) SILTY SAND/SANDY SILT, moist, firm, poorly graded, very fine-grained sand.	
46—				0.0		ML SM	Olive brown (2.5Y 4/4), SILT, moist, firm, some very fine-grained sand, oxidation staining.	
 - - 48-				0.0			Light olive brown (2.5Y 5/4) SILTY SAND, moist, stiff, some intervals of more silt and oxidation staining.	
- - 50—				0.0		ML	Olive brown (2.5Y 4/4) SILT, moist, firm, slightly plastic, some clay in zones, oxidation staining in veins throughout.	
- 52 —				0.0		SP.	Note: Gradational change from silt above to sand.  Light yellowish brown (2.5Y 6/4), SAND, moist, poorly graded, very fine-grained, faint oxidation staining.	
- 54 — -				0.3		MI	Note: Gradational change from sand, to silty sand, to	
56—				0.3		ML	silt.  Dark grayish brown (2.5Y 4/2), SILT, very moist, firm, micaceous.	
- 58— -				1.5				
60-								



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Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	(шаа) муо	Graphic Log	Soil Classification	Description Well Completion Details
62—				0.0			Dark grayish brown (2.5Y 4/2), SILT, very moist, firm, micaceous.
64—	MWC024_ SSB00065_0001			0.4		SP	Groundwater encountered approximately 63 feet.  Olive brown (2.5Y 4/3), SAND, wet to saturated, poorly graded, very fine-grained, little to some silt, faint oxidation staining.
66— - - - 68—	MWC024_ SSB00066_0001			0.0			Olive brown (2.5Y 4/3), SAND, saturated, poorly graded, fine-grained, little very fine-grained.  Note: Lost Shelby tube down-hole (broke off) on second run (11:00) - Recovered.
70—	MWC024_ SSB00069_0001 MWC024_ SSB00070_0001	×		0.0			Light olive brown (2.5Y 5/4), SAND, saturated, poorly graded, fine-grained, some very fine-grained, scattered small oxidation stained concretions.
72— - -				0.0			Light olive brown (2.5Y 5/4), SAND, saturated, poorly graded, fine-grained, little medium-grained sand.
74— - - 76—				0.0		SM SP	Very dark grayish brown (2.5Y 3/2), SILTY SAND, moist to very moist, dense, very fine-grained, micaceous, oxidation staining.  Dark grayish brown, (2.5Y 4/2), SAND, wet, poorly graded, fine-grained.
78—				1.5	Шинин	CL SP	SILTY CLAY, moist, stiff, plastic, oxidation staining.  Olive brown (2.5Y 4/3), SAND, wet to saturated, poorly graded, fine to very fine-grained, faint oxidation staining.
80 —				0.0		SM	Oxidentification and the second secon



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Note: Outer conductor casing set at 81 feet. Install bentonite pellet seal. Continue drilling with inner casing.  Olive brown (2.5Y 4/4). CLAYEY SAND, very moist, slightly plastic, fine-grained sand, abundant shells and shell fragments.  0.0 SP Olive brown (2.5Y 4/4), SAND, saturated, poorly graded, fine-grained, abundant shells.  CL Light olive brown (2.5Y 5/4), CLAY, moist, very stiff, plastic.  0.0 SP Olive brown (2.5Y 5/4), SAND, wet, poorly graded, very fine-grained, oxidation staining in veins. Light olive brown (2.5Y 5/4), CLAY, moist, hard, plastic.  0.0 SP Olive brown (2.5Y 5/4), SAND, wet, poorly graded, very fine-grained, ittle silt, no shells.	Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well C D	omple etails	etion
graded, fine-grained, abundant shells.  CL Light olive brown (2.5Y 5/4), CLAY, moist, very stiff, plastic.  O.0 SP Olive brown (2.5Y 4/4), SAND, wet, poorly graded, very fine-grained, oxidation staining in veins.  Light olive brown (2.5Y 4/4), SAND, wet, poorly graded, very fine-grained, oxidation staining in veins.  CL Light olive brown (2.5Y 4/4), SAND, wet, poorly graded, very fine-grained, little silt, no shells.	82— 84— 86—				1.3		ML	gradational change from poorly graded sand (above) to silty sand to silt (below).  Dark grayish brown, (2.5Y 4/2), SILT, moist, stiff, faint oxidation staining.  Note: Outer conductor casing set at 81 feet. Install bentonite pellet seal. Continue drilling with inner casing.  Olive brown (2.5Y 4/4), CLAYEY SAND, very moist, slightly plastic, fine-grained sand.	Outer Conductor Casing 1		
90— 90— CL Use brown (2.5Y 4/4), SAND, wet, poorly graded, very fine-grained, oxidation staining in veins. Light olive brown (2.5Y 5/4), CLAY, moist, hard, plastic.  92— 93— 94— 94— 96— 96— 98— 98— 98— 98— 98— 98— 98— 98— 98— 98	- 88 –				0.0		.**	graded, fine-grained, abundant shells.  Light olive brown (2.5Y 5/4), CLAY, moist, very			
92 Olive brown (2.5Y 4/4), SAND, wet, poorly graded, very fine-grained, little silt, no shells.	90— -							Olive brown (2.5Y 4/4), SAND, wet, poorly graded, very fine-grained, oxidation staining in veins.  Light olive brown (2.5Y 5/4), CLAY, moist, hard,			
94 — 96 — 96 — 96 — 96 — 96 — 96 — 96 —	92— -				0.0		SP				
Olive brown (2.5Y 4/4), SILTY CLAY, moist, hard, slightly plastic, few stringers of very fine-grained oxidized sand.	94-				0.0					•	ellets_
	96— - - 98—				1.2		CL	hard, slightly plastic, few stringers of very fine-			Bentonite Pe



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Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well C	omp etail	
- - - 102—				0.2	No. Proceedings	SP	Light olive brown (2.5Y 4/4), SAND, wet to saturated, poorly graded, very fine-grained, faint oxidation staining			
- - 104				1.9		CL.	Olive brown (2.5Y 4/3), SILTY CLAY, moist, very stiff, slightly plastic, oxidation staining in veinlets throughout.			
- 106—				0.4						d Sand <sup>⊥</sup>
- - 108-				0.0		ML	Dark grayish brown (2.5Y 4/2), SILT, moist, very stiff, oxidation staining in veinlets throughout.  Grading into;			#39 Blend
				0.0		SM	Dark grayish brown (2.5Y 4/2), SILTY SAND, very moist, stiff, very fine-grained.			
110— -					пипип	SP	Olive brown (2.5Y 4/4), SAND, saturated, poorly graded, very fine-grained, some silt.	Slot		
- - 112—				0.0		CL	Dark grayish brown (2.5Y 4/2), CLAY, moist, hard, some silt, oxidation staining in veins	1" Sch 80 PVC 0.02" Slot		
						SM/ML	throughout.  Dark grayish brown (2.5Y 4/2), SANDY  SILT/SILTY SAND, moist, very fine-grained,	ch 80 P		
- 114 —				0.3		SP	oxidation staining.  Dark yellowish brown (10YR 4/4), SAND,	4"S		
- - -	MWC024_			0.2	NA PRO SA	ML SP	saturated, poorly graded, fine-grained, trace medium-grained, oxidation staining.  Olive brown (2.5Y 4/4), CLAYEY SILT, moist,			
- 116—	SSB00115_0001 MWC024_ SSB00116_0001			0.0			firm, slightly plastic, little oxidation staining.  Dark yellowish brown (10YR 4/4), SAND,			
-	33500110_0001			0.0			saturated, poorly graded, fine-grained, trace medium-grained, scattered shells and fragments.			
- 118—				0.0		ML	Olive brown (2.5Y 4/3), SILT, moist, hard, trace clay, oxidation staining in veins, % very fine sand increases with depth.			
				0.4			Olive brown (2.5Y 4/3), SILT, very moist, firm, little to some very fine grained-sand.			
120—										



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- - 122—				0.1		SM.	Olive brown (2.5Y 4/3), SILTY SAND, very moist to wet, very fine-grained sand.	
- 124 — -						SP	Olive brown (2.5Y 4/3), SAND, saturated, poorly graded, fine-grained, trace medium-grained.	Caved
- 126 — -				1.6				
- 128 — -							Well Detail           0 to 96         4" Sch 80 PVC Blank           96 to 121         4" Sch 80 PVC 0.020 Slot           0 to 2.5         Concrete with Traffic Rated Well Box	
- 130 <i>-</i> -							2.5 to 93 Portland Cement w/ 5% Bentonite Grout 93 to 96 Bentonite Pellets 96 to 122 #39 Blend Sand	
- 132— -								
- 134 — -								
- 136								
- - 38								
- - -								

Notes: Boring total depth 125 feet. Groundwater encountered at approximately 63 feet. Boring completed as a groundwater monitoring well.

